Remarks

Claims

Claims 1-23 are pending. Claims 10, 18 and 23 have been amended to correct typographical errors. Claims 10 and 18 were amended to clarify that inorganic molecules are included in the list of therapeutic, prophylactic or diagnostic agents. Claim 18 was further amended to delete ".comprising" and to insert "and" in the claim. A copy of all of the pending claims as they are believed to have been amended is attached to this Amendment as an appendix.

Drawings

The x-axis of Figure 5 has been relabeled to read "time (hours)". Figure 12 A has been deleted because it is a duplicate of Figure 7. Figures 7 and 12B have been relabeled Figures 7A and 7B, respectively. Attached are copies of the informal drawings with the corrections noted in red.

Specification

The specification has been amended to correct typographical errors, clarify references to Figures 5, 7, 12a and 12b and titles for the Examples, and complete the citations provided in the application as originally filed.

On page 5, "Figure 7" has been amended to read "Figure 7A", and a description of Figure 7B has been inserted. Support for this amendment can be found at least in Figure 12B as originally filed and page 5, lines 25-27 of the specification as originally filed.

The titles for Examples 1, 2, 3, and 4 have been amended to refer to macromers and hydrogels. Support for these amendments can be found at least in Figures 1-3.

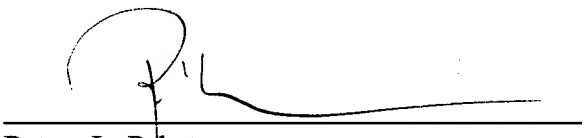
On pages 20 and 23, references to "Lys" have been amended to refer to Lys_5. Support for these amendments can be found at least in Figure 2.

The title of Example 7 has been amended to refer to hydrogels generally. Support for this amendment can be found in the specification at least on page 22, lines 6-9 and 16-21.

The description of Example 8 has been amended to state that the PVA-NO-bFGF hydrogels were prepared as described in Example 6 and that release of bFGF was quantified using that BCA assay (Pierce Chemicals) and is shown in Figure 7B. Support for these amendments can be found in the specification, as originally filed, at page 21, lines 30-31 and page 22, lines 3-4, respectively.

Allowance of claims 1-23 is respectfully solicited.

Respectfully submitted,



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I hereby certify that this paper, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Teresa Spratt

Date: November 21, 2000

Appendix: Claims As Pending After Preliminary Amendment

1. A biocompatible, polymerizable, macromer composition comprising at least one NO carrying region or NO modulating compound, wherein NO or NO modulating compound is released from the macromer composition following polymerization, under physiological conditions, wherein the macromers comprise regions selected from the group consisting of water soluble regions, tissue adhesive regions, and polymerizable end group regions.

2. The macromer composition of claim 1 wherein the macromer composition comprises additional macromers which do not release NO following polymerization.

3. The macromer composition of claim 1 wherein the macromer further comprises crosslinkable side groups.

4. The macromer composition of claim 1 wherein the macromer comprises at least one degradable region.

5. The macromer composition of claim 1 wherein the macromer is water soluble.

6. The macromer composition of claim 1 wherein the macromer adheres to tissue.

7. The macromer composition of claim 1 wherein the macromer comprises a water soluble region attached to a degradable region, at least one polymerizable region attached to the water soluble region, and at least one polymerizable region attached to the degradable region.

8. The macromer composition of claim 4 wherein the degradable region is a central core, at least two water soluble regions are attached to the core, and at least one polymerizable region is attached to each water soluble region.

9. The macromer composition of claim 1 wherein the macromer comprises a water soluble region forming a central core, at least two degradable regions attached to the core, and at least two polymerizable regions attached to the degradable regions.

10. (Amended) The macromer composition of claim 1 further comprising therapeutic, prophylactic or diagnostic agents selected from the group consisting of proteins, carbohydrates,

nucleic acids, organic molecules, inorganic molecules, biologically active molecules, cells, tissues, [and] tissue aggregates, and diagnostic agents.

11. The macromer composition of claim 1 wherein the macromer comprises at least one water soluble region, at least one NO carrying region and at least one free radical polymerizable region.

12. The macromer composition of Claim 11 further comprising at least one degradable region.

13. The macromer composition of claim 1 having incorporated therein or releasably bound thereto a compound modulating NO levels under physiological conditions.

14. The macromer composition of claim 1 releasing NO under physiological conditions.

15. A method for modulating NO levels in tissue comprising administering to the tissue any of the macromer compositions of claims 1-14.

16. The method of claim 15 further comprising first applying a polymerization initiator at the site where the macromer composition solution is to be polymerized.

17. The method of claim 16 wherein the initiator binds to the tissue, further comprising removing unbound initiator prior to application of the macromer composition solution.

18. (Amended) A method for controlled release of therapeutic, prophylactic, or diagnostic agents comprising administering to tissue in need thereof [ ]a biocompatible, polymerizable, macromer composition comprising at least one NO carrying region or NO modulating compound, wherein NO or NO modulating compound is released from the macromer composition following polymerization, under physiological conditions, wherein the macromers comprise regions selected from the group consisting of water soluble regions, tissue adhesive regions, and polymerizable end group regions[.comprising] and therapeutic, prophylactic or

diagnostic agents selected from the group consisting of proteins, carbohydrates, nucleic acids, organic molecules, inorganic molecules, biologically active molecules, cells, tissues, [and] tissue aggregates, and diagnostic agents.

19. A method for making a polymeric composition capable of releasing nitric oxide at physiological pH, the method comprising

polymerizing a solution of biocompatible macromers on tissue,

wherein the macromers comprise at least one NO carrying or producing region.

20. A method of treating a disorder or condition with NO comprising administering to an individual in need thereof a biocompatible, polymerizable, macromer composition comprising at least one NO carrying region or NO modulating compound, wherein NO or NO modulating compound is released from the macromer composition following polymerization, under physiological conditions, wherein the macromers comprise regions selected from the group consisting of water soluble regions, tissue adhesive regions, and polymerizable end group regions.

21. The method of claim 20 wherein the macromer further comprises degradable regions.

22. The method of claim 20 for treatment of a disorder or condition selected from the group consisting of wound healing, restenosis, thrombosis, asthma, arthritis, and erectile dysfunction.

23. (Amended) The method of claim 20 wherein the macromer is adhered to tissue to prevent surgical adhesions, adhere tissue[ ], provide support for tissue or coat the tissue.